

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A process for producing an electronic device material comprising forming a film on ~~[[the]]~~ a surface of ~~an electronic a semiconductor~~ device substrate by using a plasma based on microwave irradiation via a plane antenna member having a plurality of slits, in the presence of a process gas comprising ~~at least a gas containing a film-forming substance and a rare gas~~ oxygen gas, a rare gas, and a gas comprising an organic source to form a high dielectric constant film, the plasma having an electron temperature of 2 eV or less and an electron density of $1 \times 10^{11}/\text{cm}^3$ or more.

2-4. (Cancelled)

5. (Currently Amended) A process for producing an electronic device material according to claim ~~[[4]]~~ 1, wherein the ~~film-forming substance is a film-forming substance for~~ high dielectric constant film is a gate insulator of a field-effect transistor.

6. (Currently Amended) A process for producing an electronic device material according to claim ~~[[5]]~~ 1, wherein the ~~film-forming substance for gate insulator~~ high dielectric constant film comprises at least one substance selected

from the group consisting of: ~~SiO₂, Si₃N₄~~, Ta₂O₅, ZrO₂, HfO₂, Al₂O₃, La₂O₃, TiO₂, Y₂O₃, BST, Pr₂O₃, Gd₂O₃, CeO₂ and compounds of these substances.

7. (Cancelled)

8. (Currently Amended) A process for producing an electronic device material according to claim [[6]] 1, wherein the high dielectric constant film is formed at a temperature of 250 to 500°C and has a carbon concentration in the insulating film is of 15% or less.

9-12. (Cancelled)

13. (New) A process for producing an electronic device material according to claim 1, comprising:

forming an insulating film selected from the group consisting of a silicon oxide film, a nitride film, or a oxynitride film on a surface of the semiconductor device substrate, and

forming the high dielectric constant film on the insulating film.

14. (New) A process for producing an electronic device material according to claim 1, wherein the process gas includes a carrier gas.

15. (New) A process for producing an electronic device material according to claim 1, wherein the semiconductor device substrate has a diameter of about 300 mm.

16. (New) A process for producing an electronic device material according to claim 1, wherein the high dielectric constant film has a dielectric constant of 7.0 or more.

17. (New) A process for producing an electronic device material according to claim 1, wherein organic source is an organometallic compound.

18. (New) A process for producing an electronic device material according to claim 1, wherein the organic source is selected from the group consisting of $\text{Ta}(\text{OC}_2\text{H}_5)_5$, $\text{Zr}(\text{OC}_4\text{H}_9)_4$ and $\text{Hf}(\text{OC}_4\text{H}_9)_4$.